

Title (en)
BACKSIDE ILLUMINATED SEMICONDUCTOR PHOTODETECTION ELEMENT

Title (de)
RÜCKSEITIG BELEUCHTETES HALBLEITER-PHOTODETEKTORELEMENT

Title (fr)
ÉLÉMENT DE PHOTODÉTECTION À SEMI-CONDUCTEUR RÉTROÉCLAIRÉ

Publication
EP 3783672 A1 20210224 (EN)

Application
EP 19787590 A 20190411

Priority
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• JP 2018078649 A 20180416

Abstract (en)
A semiconductor substrate includes a first main surface and a second main surface opposing each other. The semiconductor substrate includes a plurality of second semiconductor regions in a side of the second main surface. Each of the plurality of second semiconductor regions includes a first region including a textured surface, and a second region where a bump electrode is disposed. The plurality of second semiconductor regions are two-dimensionally distributed in a first direction and a second direction orthogonal to each other when viewed in a direction orthogonal to the semiconductor substrate. The first region and the second region are adjacent to each other in a direction crossing the first direction and the second direction. The textured surface of the first region is located toward the first main surface in comparison to the surface of the second region in a thickness direction of the semiconductor substrate. The first main surface is a light incident surface of the semiconductor substrate.

IPC 8 full level
H01L 31/10 (2006.01)

CPC (source: EP US)
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H01L 31/03529 (2013.01 - US); **H01L 31/102** (2013.01 - US); **H01L 31/103** (2013.01 - EP); **H01L 31/125** (2013.01 - US)

Designated contracting state (EPC)
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